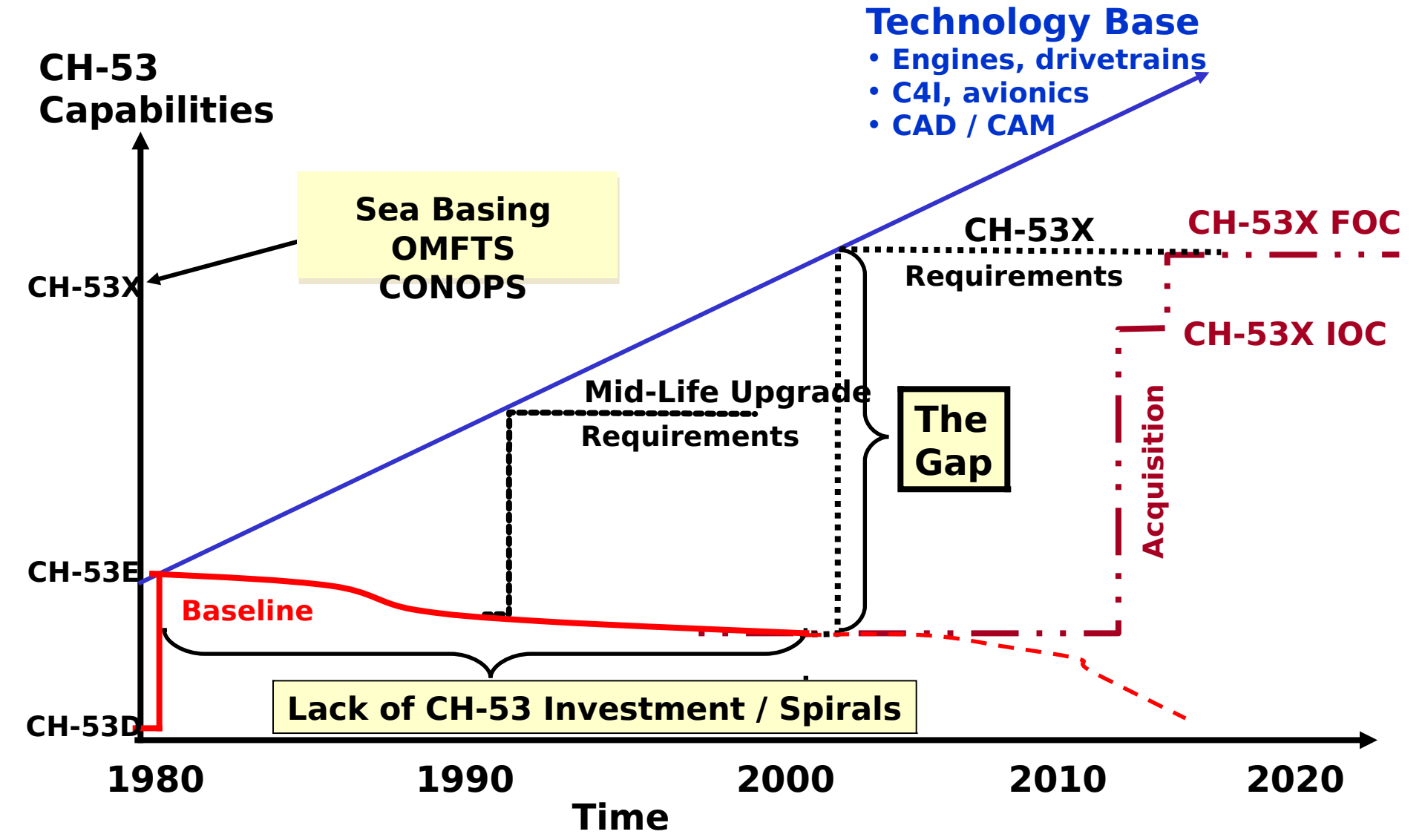
H-53 Heavy-Lift Helicopter Program Advance Technology Review Board

Colonel Paul Croisetiere
Program Manager
H-53 Heavy-Lift Helicopter

08 April 04

Capability Gap

PMA-261
Heavy Lift



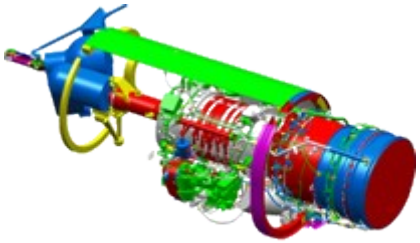
Meeting the Requirements

PMA-261 Heavy Lift

High Efficiency Rotor Blade w/swept anhedral tip

Commonality with:
- V22
- H1
- CASS
- VXX
- H-60

Joint Interoperable Modern Cockpit

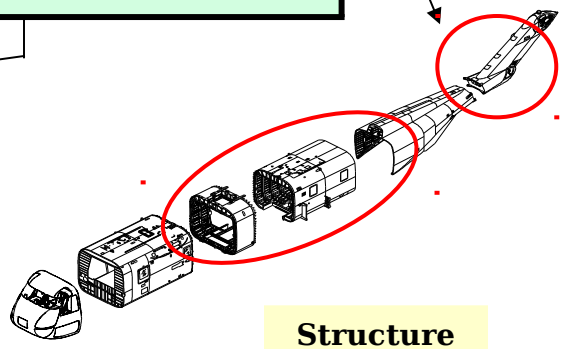


Common Engine System

KPP	Threshold (T) and Objective (O)
Interoperability	• Satisfy 100% of the IERs listed as "critical" Table B (T) • Satisfy 100% of all the IERs listed in Table B (O)
Range / Payload (Navy High / Hot)	Unrefueled Mission radius of 110 NM with a 27,000 lbs external load (T) Unrefueled Mission radius of 110 NM with a 30,000 lbs external load (O)
Mission Reliability	89% (T) 90% (O)
Logistics Footprint (Air & Sea)	≤ the current CH-53E Logistics Footprint as defined in Appendix B (T) 10% reduction from current CH-53E logistics footprint (O)
Sortie Generation Rate / Average Sortie Duration	2.6 / 2.25 within the mission description defined in ORD Appendix K (T/O)
Survivability	See Appendix H

Low Maintenance Elastomeric Rotorhead

Survivability Enhancements



Structure

Drive Train

CH-53X Technologies

PMA-261
Heavy Lift

Rotor Blade

- Anhedral Tip Main Rotor Blade
  - Increased lift of 5,000 pounds without increase in power
  - Increased aircraft performance
  - 4th generation technology

Drive Train

- Gear Box Technology

Helicopter Structure

- High gross weight
- Survivability

Reliability

Cargo Systems

CH-53X Technologies

PMA-261 Heavy Lift

Survivability:

- DIRCM
- SIRFC

Modernized Avionics:

- Information Exchange Requirements
  - Tactical Data Links
  - CNS/ATM Compliant
- Glass Cockpit
  - Addresses obsolescence issues
  - Open architecture
  - Modularized Software
  - Common!!!!

Integrated Program Schedule

PMA-261 Heavy Lift